

What is claimed is:

1. A mobile communication system for inactivating a virus, comprising:

5       a database associated with the mobile communication system, for storing at least one virus vaccine program; and

          a virus monitoring unit associated with the mobile communication system, for checking virus infection of received data, analyzing virus information, choosing one of virus vaccine programs that are stored in the database and  
10       inactivating the virus.

2. The system as recited in claim 1, wherein the virus monitoring unit notifies of virus infection to a mobile  
15       terminal communicating with the mobile communication system.

3. The system as recited in claim 2, wherein the mobile terminal sends a vaccine request message to the mobile communication system for updating virus vaccine program when  
20       the mobile terminal cannot inactivate the virus.

4. The system as recited in claim 3, wherein the vaccine request message includes vaccine program information and capability information of the mobile terminal.

25

5. A method for inactivating viruses in a mobile communication system, comprising:

(a) at a virus monitoring unit, detecting virus infection of data received from a mobile terminal;

(b) at the virus monitoring unit, analyzing virus information when data are virus infected; and

5 (c) at the virus monitoring unit, choosing suitable one of virus vaccine programs that are stored in a database according to the virus information to inactivate the virus.

6. The method as recited in claim 5, further comprising,  
10 at the virus monitoring unit, notifying of virus infection to the mobile terminal.

7. A mobile terminal, comprising:

receiving a virus infection notification from a virus  
15 monitoring unit and detecting a virus infection of the mobile terminal to inactivate viruses by using a virus vaccine program stored therein; and

transmitting a vaccine request message to the virus  
monitoring unit to receive a virus vaccine program suitable  
20 for the detected virus to thereby inactivate the virus by using the received virus vaccine program when the virus vaccine program previously stored in the mobile terminal can not inactivate the virus.

25 8. The mobile terminal as recited in claim 7, wherein the vaccine request message includes vaccine program information and capability information of the mobile terminal.

9. A method for inactivating viruses in a mobile communication system, comprising:

5 (a) at a mobile terminal, detecting a virus infection of data before transmitting data and inactivating the virus using a vaccine program stored in the mobile terminal when the virus is detected;

(b) at the mobile terminal, sending a vaccine request message to a virus monitoring unit when the vaccine program  
10 stored in the mobile terminal cannot inactivate the virus; and

(c) at the mobile terminal, receiving a new vaccine program which is transmitted from the virus monitoring unit in response to the vaccine request message.

15 10. The method as recited in claim 9, wherein the vaccine request message includes vaccine program information, virus information and capability information of the mobile terminal.

11. A method for updating a virus vaccine program in a  
20 mobile communication system, comprising:

(a) at a mobile terminal, receiving a vaccine information request message from a virus monitoring unit;

(b) at the mobile terminal, sending a vaccine information response message including vaccine program information and  
25 capability information of the mobile terminal to a virus monitoring unit in response to the vaccine information request message; and

(c) at the mobile terminal, receiving a vaccine program chosen according to the vaccine program information and the capability information of the mobile terminal.

5        12. A method for updating a virus vaccine program in a mobile communication system, comprising:

(a) at a virus monitoring unit, sending a vaccine information request message to a mobile terminal;

(b) at the virus monitoring unit, receiving a vaccine information response message including vaccine program information and capability information of the mobile terminal; and

(c) at the virus monitoring unit, sending a vaccine program chosen according to the vaccine program information and the capability information of the mobile terminal to the mobile terminal.

13. A method for updating a virus vaccine program in a mobile communication system, comprising:

20        (a) at a mobile terminal, sending a vaccine update request message including vaccine program information and capability information of the mobile terminal to a virus monitoring unit; and

(b) at the mobile terminal, receiving a vaccine program chosen according to the vaccine program information and the capability information of the mobile terminal from the virus monitoring unit.

14. A method for updating a virus vaccine program in a mobile communication system, comprising:

5 (a) at a virus monitoring unit, receiving a vaccine update request message including vaccine program information and capability information of the mobile terminal from the mobile terminal; and

10 (b) at the virus monitoring unit, sending a vaccine program chosen according to the vaccine program information and the capability information of the mobile terminal to the mobile terminal.